

{In Archive} Re: example particle tracks

Scott Ellinger to: Ray Leissner

Cc: Philip Dellinger

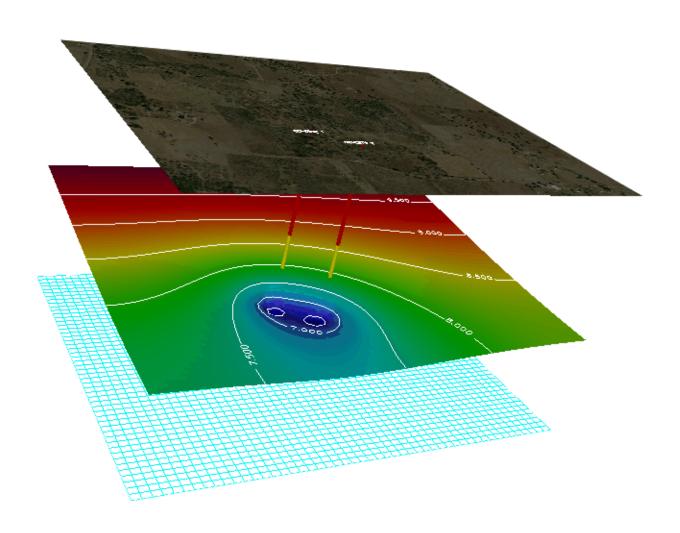
From: Scott Ellinger/R6/USEPA/US

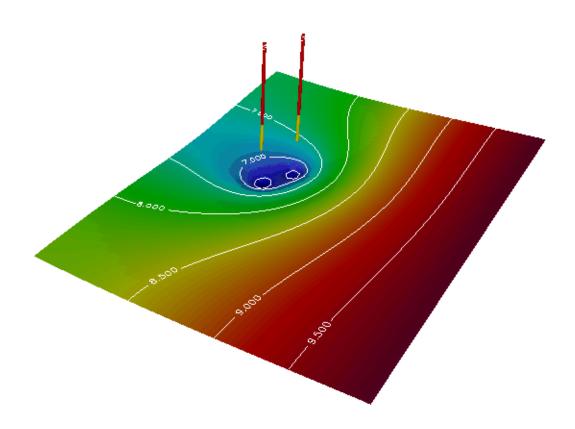
To: Ray Leissner/R6/USEPA/US@EPA
Cc: Philip Dellinger/R6/USEPA/US@EPA

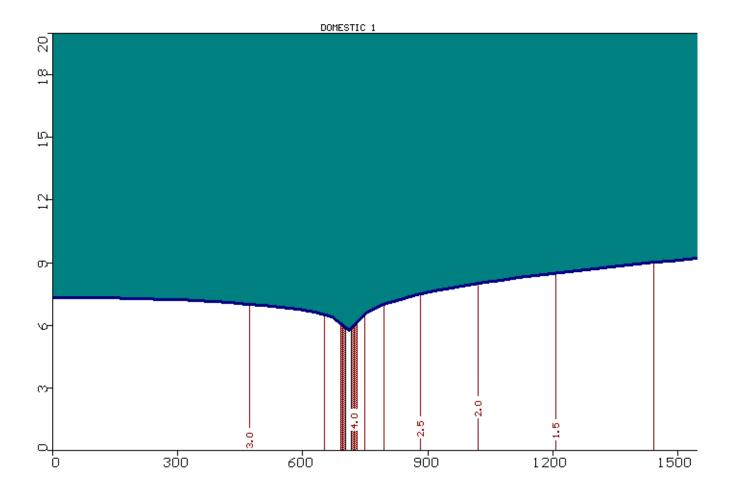
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Here are a few more Goliad examples. The blue/white lines are equipotential lines. Color change in particle tracks reflects up, down, or horozintal motion. Can you tell me the CFR citation for the "current useage" language to make sure I know what it says.

11/17/2011 08:53 AM







Ray Leissner Awesome. I follow the increasing velocity as the... 11/16/2011 03:57:01 PM

From: Ray Leissner/R6/USEPA/US
To: Scott Ellinger/R6/USEPA/US@EPA
Cc: Philip Dellinger/R6/USEPA/US@EPA

Date: 11/16/2011 03:57 PM
Subject: Re: example particle tracks

Awesome. I follow the increasing velocity as the particle nears the wellbore. What are the blue lines, piezometric? Can you provide a cut away view? What is the significance of the color change in the tracks? I assume both wells were turned on together with the same rate so the differences in the length of tracks is a function of transmissibility.

We really need to understand what our capabilities are in crafting a modeling program that best address the criterion. Particle tracking is the best concept I can think of. However, how are we going to model for current usage? To me it would seem we would find a judge receptive to the idea if we modeled as close to real world conditions as possible.

If you agree the to model for current usage then it would seem one would: gather the best start dates and production estimates from each of the 4 Goliad sands we are dealing with, as they are completed (or not) to each well in question and then run a multi-well particle tracking model to the current day on each sand taking into account the cumulative affect of all of the production wells from the day they are turned on and the influx of GW from the natural gradient.

Is this overkill? Is this description reasonable in terms of complexity for the purpose of the modeling?

Ray Leissner, Env. Eng. Ground Water / UIC Section (6WQ-SG) (214) 665 - 7183 USEPA, Region 6

The FIRST STEP in protecting your ground water is to have your well tested.

Scott Ellinger

Here is an example of particle tracking at Goliad...

11/16/2011 03:12:58 PM